

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001753**Date Inspected:** 09-Mar-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1830**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai China

CWI Name:	Fu Guo Gang			CWI Present:	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A
Bridge No:	34-0006			Component:	Tower 89m mock-up,OBG		

Summary of Items Observed:

This Quality Assurance (QA) inspector upon arrival at ZPMC for observation of the 89m mock up. ZPMC was seen performing a weld repair on the shear link beam that was discovered by Ultrasonic Testing (UT) by ZPMC personnel. The location for the repair was MUSB-MA25-16A and being performed by welder Dai Lu under Welding Procedure Specification (WPS) number WPS-345-SMAW-1G (1F)-FCM-Repair. ZPMC Quality Control/Certified Welding Inspector (QC/CWI) Fu Guo Gang was observed as being present during the welding operations and monitoring welding parameters and progress. The welding parameters documented by ZPMC were on average of 176 amps, 23.9 volts and travel speed of 130mm/min. Preheat and interpass temperatures were within the requirements of the WPS. The work noted above appeared to be within the general requirements of the contract documents.

During the continued observations at ZPMC this QA inspector noted that ZPMC personnel were performing heat straitening for diaphragm A318 (E) using a rose bud and predetermined locations along the part. The procedure being applied was HSR 1 (T) 084 which has a maximum temperature of 600° c. This QA inspector observed ZPMC QC personnel Yang Qin Feng, Zhao Chen Sun and Chen Chen monitoring and documenting parameters obtained for the heat striating process. Also noted was diaphragm plates P546 and SA 27 that had been welded together had been back gouged and was in the process of grinding the joint to a bright finish to continue with the welding process. This diaphragm is for elevation of 43m. The above work appeared to be within the general requirements of the contract documents. See digital photos below for grinding of the back gouged joint and heat striating process.

Also during this QA inspector observations continuing into bay 3 for side and bottom plates it was noted that ZPMC had performed Magnetic Particle inspections for repairs of the fillet welds that contained linear indications discovered during ZPMC's MT inspections. This QA inspector spoke with QC inspector Zhang Jiadi in regards to

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the inspection and was informed that the re-examination of the area after repair had been done and was acceptable. This QA inspector then proceeded to perform his QA verification of these two areas and found no rejectable linear indications. This QA inspector performed QA verification a TL-6028 was generated for results and locations.



Summary of Conversations:

As Noted in content above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Riley, Ken	Quality Assurance Inspector
Reviewed By:	Hager, Craig	QA Reviewer
